

and Standards for NEPA display.

Capability and suitability were determined through the use of Geographic Information Systems (GIS) technology. Based on the nature of GIS, acreage for each feature considered not capable or unsuitable is systematically eliminated from the suitable base one layer at a time. Overlapping features are subtracted only once to prevent double counting of acres. As an example, on a heavily forested developed recreation site, if the site is entirely forested, all the acres are eliminated at the dense forest canopy layer, once subtracted those same acres are no longer available to be subtracted at subsequent levels (i.e. under the developed recreation site layer). This explains why the acreage deducted in the following tables for a specific feature may be somewhat less than the total acres for that feature.

Rangeland Capability Capable rangelands are those lands that are accessible to livestock, produce forage, or have inherent forage producing capability, and can be grazed on a sustained basis. To determine acres capable of supporting livestock, land was systematically eliminated from the gross National Forest System (NFS) lands as shown in the following table. Rangeland capability does not vary by alternative.

Table B-18. Acres of land determined as capable for livestock use.

Classification/Description	Acres Deducted	Running Totals
Net National Forest System Acres	-----	1,105,017
Deductions for other than capable acres	-----	1,105,017
Soil types that are dominated by a large percentage of rock outcrop	340,944	764,073
Lands that are not capable of producing 200 pounds of forage per acre	63,347	700,727
Lakes, reservoirs, ponds, and marshes	10,564	690,163
Major rivers within the Bighorn National Forest proclaimed boundary	0	690,163
Perennial streams	1,178	688,985
Roads and highways	3,788	685,197
Slopes greater than 60% (not capable sheep or cattle)	22,022	663,175
Slopes between 41%-60% (not capable cattle)	50,621	
Total capable for sheep grazing	441,842	663,175
Total capable for cattle grazing	492,463	612,554

Rangeland suitability Suitability is the appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices. The

suitability analysis is presented in two parts: current suitability and suitability by Forest Plan alternative. To determine acres present environmentally suitable for livestock grazing, land was systematically eliminated from the net National Forest System Lands using GIS technology as shown in the following tables.

Table B-19. Acres of land determined as suitable for livestock use.

Classification/Description	Cattle		Sheep	
	Acres Deducted	Running Totals	Acres Deducted	Running Totals
Net National Forest System Acres	-----	1,105,017	-----	1,105,017
Deductions for other than capable acres	492,463	612,554	441,842	663,175
Deductions for other than suitable acres	0	612,554	0	663,175
-Existing canopy cover >70%	428,725	183,829	474,679	188,496
-Shell Canyon and Bull Elk Park RNA's that exclude livestock	173	183,656	175	188,321
Developed recreation sites	135	183,250	145	188,176
-Range exclosures	1,732	181,788	2,068	186,108
-Forage not available due to right-of-way fences & other limitations	847	180,942	873	185,236
-Current grazing closures	0	180,942	0	185,236
-Threatened, Endangered, and Sensitive Species Closures	0	180,942	0	185,236
-Other incompatibilities	0	180,942	0	185,236
-Economical Feasibility	0	180,942	0	185,236
Total suitable acres (cattle)		180,942		
Total suitable acres (sheep)				185,235

Table B-20. Acres determined at the forest plan level as suitable for livestock use.

Classification/Description	Acres Suitable
Total Suitable Determination Acres for Cattle grazing	180,942
Total Suitable Determination Acres for Sheep grazing	185,235

There was a wide discrepancy in acres of suitable rangeland described between draft and final. Differences are largely a result of two items: 1) the GIS method of calculating slope, and 2) the crown coverage information. Smaller differences were a result of 1) review and revision of criteria, and 2) refinement and update of data used.